(19) World Intellectual Property Organization International Bureau



T (DERIK BINGGOR) IN DERIKA 1900 DERIK BENGA BENGA 18 NU BENGA BUNGA BUNGA BURGA BURGA BURGA BURGA BURGA BERGA BUNG B

(43) International Publication Date 21 July 2005 (21.07.2005)

PCT

(10) International Publication Number WO 2005/066142 A3

(51) International Patent Classification⁷: A61K 31/53, 31/519

C07D 487/04,

(21) International Application Number:

PCT/JP2005/000319

(22) International Filing Date: 6 January 2005 (06.01.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2004-001311

6 January 2004 (06.01.2004) J

- (71) Applicant (for all designated States except US): TAISHO PHARMACEUTICAL CO., LTD. [JP/JP]; 24-1, Takada 3-chome, Toshima-ku, Tokyo, 1708633 (JP).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): NAKAZATO, Atsuro [JP/JP]; c/o Taisho Pharmaceutical Co., Ltd., 24-1, Takada 3-chome, Toshima-ku, Tokyo, 1708633 (JP). OKUBO, Taketoshi [JP/JP]; c/o Taisho Pharmaceutical Co., Ltd., 24-1, Takada 3-chome, Toshima-ku, Tokyo, 1708633 (JP). NOZAWA, Dai [JP/JP]; c/o Taisho Pharmaceutical Co., Ltd., 24-1, Takada 3-chome, Toshima-ku, Tokyo, 1708633 (JP). TAMITA, Tomoko [JP/JP]; c/o Taisho Pharmaceutical Co., Ltd., 24-1, Takada 3-chome, Toshima-ku, Tokyo, 1708633 (JP). KENNIS, Ludo, E.J. [BE/BE]; c/o Janssen Pharmaceutica N.V., Turnhoutseweg 30, Beerse, B-2340 (BE).

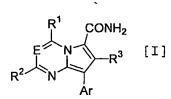
- (74) Agents: ASAMURA, Kiyoshi et al.; Room 331, New Ohtemachi Bldg., 2-1, Ohtemachi 2-chome, Chiyoda-ku, Tokyo, 1000004 (JP).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 13 October 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PYRROLOPYRIMIDINE AND PYRROLOTRIAZINE DERIVATIVES AS CRF RECEPTOR ANTAGONISTS



(57) Abstract: An object of the present invention is to provide an antagonist against CRF receptors which is effective as a therapeutic or prophylactic agent for diseases in which CRF is considered to be involved, such as depression, anxiety, Alzheimer's disease, Parkinson's disease, Huntington's chorea, eating disorder, hypertension, gastral diseases, drug dependence, epilepsy, cerebral infarction, cerebral ischemia, cerebral edema, cephalic external wound, inflammation, immunity-related diseases, alpecia, irritable bowel syndrome, sleep disorders, dermatitides, schizophrenia, pain, etc. A

pyrrolopyrimidine or pyrrolotriazine derivative substituted with a carbamoyl group represented by the following formula [I]: has a high affinity for CRF receptors and is effective against diseases in which CRF is considered to be involved.